

Remarks

The Examiner's reconsideration of the application is urged in view of the correction above and comments which follow.

First, the noted redundancy in claim 1 has been deleted. The error is regretted.

The Examiner has rejected claims 1-5 and 16-18 under 35 U.S.C. §102(b) as being anticipated by US Patent No. 5,167,926 (Kimura). Applicant submits that the Examiner has misinterpreted Kimura and that his rejection of claims 1-5 and 16-18 is unfounded.

The Examiner has asserted that the constant temperature vessels 56, 58 and 60 shown in figures 2 and 8 of Kimura are sample holders for centrifuging samples in centrifugal evaporators that include heating means to assist the evaporation process, and that containers each containing a sample to be evaporated are mounted in the vessels, so that neither the sample containers nor their contents can receive radiant heat directly from a heat source during centrifuging of the samples in vessels, but only from the vessels, as required by claim 1.

However, the applicant directs the attention of the Examiner to column 5, lines 13-20 of Kimura, which provide that the three constant temperature vessels, 56, 58 and 60 are normally held lowered in the position of figure 2. The sample tubes 16 on the sample rack 32 can be brought into vertical register with a set of holes 62 in any of the three constant temperature vessels 56, 58 and 60 with the rotation of the sample carrier 14. Then the desired vessel may be raised for receiving the lower part of the sample tubes 16 in its holes 62.

Thus the constant temperature vessels 56, 58 and 60 of Kimura are not sample holders for centrifuging samples because they are attached to the body of the apparatus and only receive sample tubes when the sample carrier 14 is stationary.

Moreover, since the constant temperature vessels 56, 58 and 60 of Kimura cannot receive the sample containers during centrifuging of the samples, the samples cannot be mounted in the vessels so that neither the sample containers nor their contents can receive radiant heat directly from a heat source during centrifuging of the samples in the vessels.

Applicant requests that if the Examiner maintains that the constant temperature vessels 56, 58 and 60 are sample holders for centrifuging samples in centrifugal evaporators, as required by claim 1, that the Examiner indicate where in Kimura it is stated that the constant temperature vessels are sample holders for centrifuging samples. Otherwise Applicant requests that the Examiner withdraw the rejection of claim 1 and, by virtue of their dependency from claim 1, the rejection of claims 2-5 and 16-18.

The Examiner has also rejected claims 12 and 13 as being anticipated by US Patent No. 5,356,365 (Brierton). The applicant also submits that the Examiner's rejection of claims 12 and 13 is unfounded, because the Examiner has misunderstood the teaching of Brierton.

The Examiner has asserted that Brierton shows a method of heating samples during centrifuging in a centrifugal evaporator to assist in evaporating solvent therefrom and leave dry residue sample material, previously dissolved in a solvent, the method including the steps of mounting the sample in good thermal contact with a mass of high thermal conductivity material forming a sample holder, centrifuging the samples in the sample holder and at the same time supplying energy to heat the sample holder and in turn the samples, as required by claim 12.

Applicant directs the attention of the Examiner to figure 1 of Brierton, which shows a variable volume centrifuge, including a centrifuge bowl 14 that is separated into upper and lower chambers 34 and 38 by a flexible membrane 30. The lower chamber 38 is connected to a fluid source so that fluid may be introduced into and removed from the lower chamber 38 to raise and lower the membrane 30 and thus vary the volume of the upper chamber 34 of the centrifuge bowl 14.

Far from showing a method that includes the step of mounting samples in good thermal contact with a mass of high thermal conductivity material forming a sample holder, therefore, Brierton shows a method in which the samples are insulated from the sample holder at least by the membrane 30 and more often by both the membrane 30 and a layer of fluid that fills the lower chamber 38 of the centrifuge bowl 14.

Again, Applicant requests that if the Examiner maintains that Brierton shows a method that includes the step of mounting samples in good thermal conduct with a mass of high thermal conductivity material forming a sample holder, the Examiner indicate exactly where in Brierton this is taught.

The Examiner has also asserted that Brierton shows a method of preventing early to dry samples during centrifuging in a centrifugal evaporator from overheating as energy is supplied to evaporate solvent from other samples, in which sample containers are located in a sample holder comprising a mass of highly thermally conductive material whereby temperature gradients within the assembly are minimised and the existence of liquid in samples which are still evaporating prevents dried sample material from reaching a temperature at which damage can occur to the material, as required by claim 13.

Applicant submits that this last assertion is also incorrect. Brierton is concerned with centrifuging a single sample rather than protecting some of a plurality of samples from overheating. Even if the apparatus shown in Brierton were to be used with a plurality of samples, because those samples would be insulated from the sample holder by the membrane 30 and any fluid between the membrane 30 and centrifuge bowl 14, Brierton does not teach a method that includes locating the sample containers in a sample holder whereby temperature gradients within the assembly are minimised.

Applicant again requests that, if the Examiner maintains that Brierton shows a method in which sample containers are located in a sample holder whereby temperature gradients within the assembly are minimised and the existence of liquid in samples which are still evaporating prevents dried sample material from reaching

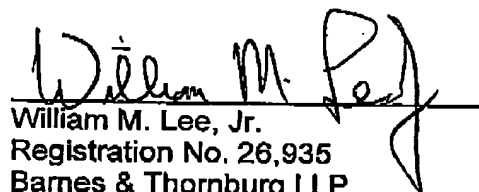
a temperature at which damage can occur to the material, indicate exactly where in Brierton this is taught. Otherwise applicant requests that the Examiner withdraw his rejection of claim 13.

The Examiner has rejected claim 6 as being obvious in view of the teaching of Kimura and Sheeran. In view of the Examiner's misinterpretation of the teaching of Kimura, applicant submits that claim 6 is not obvious over Kimura and Sheeran and requests that the Examiner withdraw the rejection in respect of claim 6.

In view of the foregoing, it is submitted that the application is now in condition for allowance, and the Examiner's further and favorable reconsideration in that regard is urged.

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Respectfully submitted,



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